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<b>Application Number</b>	09/902,481
<b>Filing Date</b>	July 9, 2001
<b>First Named Inventor</b>	SPRINGER, Timothy
<b>Group Art Unit</b>	1653
<b>Examiner Name</b>	
<b>Attorney Docket Number</b>	A-70586-1/RFT/RMS/RMK

Sheet	1	of	5
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## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT DOCUMENTS

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Date  
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Substitute for form 1449B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	09/902,481
				Filing Date	July 9, 2001
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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
mH	C1	ANDERSON, D.C. et al., "Contributions of the Mac-1 glycoprotein family to adherence-dependent granulocyte functions: structure-function assessments employing subunit-specific monoclonal antibodies." J Immunol. 1986 Jul 1;137(1):15-27.		
mH	C2	APLIN, A.E. et al., "Signal transduction and signal modulation by cell adhesion receptors: the role of integrins, cadherins, immunoglobulin-cell adhesion molecules, and selectins." Pharmacol Rev. 1998 Jun;50(2):197-263		
mH	C3	ARNAOUT, M.A. et al., "Amino acid sequence of the alpha subunit of human leukocyte adhesion receptor Mo1 (complement receptor type 3)." J Cell Biol. 1988 Jun;106(6):2153-8.		
mH	C4	BALDWIN, E.T., et al., "Cation binding to the integrin CD11b I domain and activation model assessment." Structure. 1998 Jul 15;6(7):923-35.		
mH	C5	BETZ, S.F. and DeGRADO, W.F., "Controlling topology and native-like behavior of de novo-designed peptides: design and characterization of antiparallel four-stranded coiled coils." Biochemistry. 1996 May 28;35(21):6955-62.		
mH	C6	CORBI, A.L. et al., "cDNA cloning and complete primary structure of the alpha subunit of a leukocyte adhesion glycoprotein, p150,95." EMBO J. 1987 Dec 20;6(13):4023-8.		
mH	C7	CORBI, A.L. et al., "The human leukocyte adhesion glycoprotein Mac-1 (complement receptor type 3, CD11b) alpha subunit. Cloning, primary structure, and relation to the integrins, von Willebrand factor and factor B." J Biol Chem. 1988 Sep 5;263(25):12403-11.		
mH	C8	DAHIYAT, B.I. and MAYO, S.L. "Protein design automation." Protein Sci. 1996 May;5(5):895-903.		
mH	C9	DAHIYAT, B.I. et al., "Automated design of the surface positions of protein helices." Protein Sci. 1997 Jun;6(6):1333-7.		
mH	C10	DAHIYAT, B.I. and MAYO, S.L. "De novo protein design: fully automated sequence selection." Science. 1997 Oct 3;278(5335):82-7.		
mH	C11	DAHIYAT, B.I. et al., "De novo protein design: towards fully automated sequence selection." J Mol Biol. 1997 Nov 7;273(4):789-96.		
mH	C12	DAVIGNON, D. et al., "Lymphocyte function-associated antigen 1 (LFA-1): a surface antigen distinct from Lyt-2,3 that participates in T lymphocyte-mediated killing." Proc Natl Acad Sci U S A. 1981 Jul;78(7):4535-9.		
mH	C13	DESJARLAIS, J.R. and HANDEL, T.M. "De novo design of the hydrophobic cores of proteins." Protein Sci. 1995 Oct;4(10):2006-18.		
mH	C14	DIAMOND, M.S. et al., "The I domain is a major recognition site on the leukocyte integrin Mac-1 (CD11b/CD18) for four distinct adhesion ligands." J Cell Biol. 1993 Feb;120(4):1031-43.		
mH	C15	DUSTIN, M.L. and SPRINGER, T.A., "Lymphocyte function-associated antigen-1 (LFA-1) interaction with intercellular adhesion molecule-1 (ICAM-1) is one of at least three mechanisms for lymphocyte adhesion to cultured endothelial cells." J Cell Biol. 1988 Jul;107(1):321-31.		
mH	C16	EMSLEY, J. et al., "Structural basis of collagen recognition by integrin alpha2beta1." Cell. 2000 Mar 31;101(1):47-56.		
mH	C17	EMSLEY, J. et al., "Crystal structure of the I domain from integrin alpha2beta1." J Biol Chem. 1997 Nov 7;272(45):28512-7.		

Examiner Signature	Maher Haddad	Date Considered	4/9/03
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Sheet	3	of	5	Attorney Docket Number	A-70586-1/RFT/RMS/RMK	

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
mH	C18	HARBURY, P.B. et al., "Repacking protein cores with backbone freedom: structure prediction for coiled coils." Proc Natl Acad Sci U S A. 1995 Aug 29;92(18):8408-12.	
mH	C19	HARLAN, J.M. et al., "The role of neutrophil membrane glycoprotein GP-150 in neutrophil adherence to endothelium in vitro." Blood. 1985 Jul;66(1):167-78.	
mH	C20	HASKARD, D. et al., "T lymphocyte adhesion to endothelial cells: mechanisms demonstrated by anti-LFA-1 monoclonal antibodies." J Immunol. 1986 Nov 1;137(9):2901-6.	
mH	C21	HELLINGA, H.W. and RICHARDS, F.M. "Construction of new ligand binding sites in proteins of known structure. I. Computer-aided modeling of sites with pre-defined geometry." J Mol Biol. 1991 Dec 5;222(3):763-85.	
mH	C22	HUANG, C. and SPRINGER, T.A., "A binding interface on the I domain of lymphocyte function-associated antigen-1 (LFA-1) required for specific interaction with intercellular adhesion molecule 1 (ICAM-1)." J Biol Chem. 1995 Aug 11;270(32):19008-16.	
mH	C23	HUMPHRIES, M.J. "Integrin structure." Biochem Soc Trans. 2000;28(4):311-39.	
mH	C24	HURLEY, J.H. et al., "Design and structural analysis of alternative hydrophobic core packing arrangements in bacteriophage T4 lysozyme." J Mol Biol. 1992 Apr 20;224(4):1143-59.	
mH	C25	JONES, D.T. "De novo protein design using pairwise potentials and a genetic algorithm." Protein Sci. 1994 Apr;3(4):567-74.	
mH	C26	KAUFMANN, Y. et al., "Cloning of the murine lymphocyte function-associated molecule-1 alpha-subunit and its expression in COS cells." J Immunol. 1991 Jul 1;147(1):369-74.	
mH	C27	KISHIMOTO, T.K. et al., "The leukocyte integrins." Adv Immunol. 1989;46:149-82.	
mH	C28	KLEMB, M. et al., "Novel metal-binding proteins by design." Nat Struct Biol. 1995 May;2(5):368-73.	
mH	C29	KONO, H. and DOI, J. "Energy minimization method using automata network for sequence and side-chain conformation prediction from given backbone geometry." Proteins. 1994 Jul;19(3):244-55.	
mH	C30	KRENSKY, A.M. et al., "The functional significance, distribution, and structure of LFA-1, LFA-2, and LFA-3: cell surface antigens associated with CTL-target interactions." J Immunol. 1983 Aug;131(2):611-6.	
mH	C31	LANIER, L.L. et al., "p150/95, Third member of the LFA-1/CR3 polypeptide family identified by anti-Leu M5 monoclonal antibody." Eur J Immunol. 1985 Jul;15(7):713-8.	
mH	C32	LARSON, R.S. et al., "Primary structure of the leukocyte function-associated molecule-1 alpha subunit: an integrin with an embedded domain defining a protein superfamily." J Cell Biol. 1989 Feb;108(2):703-12.	
mH	C33	LEE, J.O. et al., "Crystal structure of the A domain from the alpha subunit of integrin CR3 (CD11b/CD18)." Cell. 1995 Feb 24;80(4):631-8.	
mH	C34	LEE, J.O. et al., "Two conformations of the integrin A-domain (I-domain): a pathway for activation?" Structure. 1995 Dec 15;3(12):1333-40.	
mH	C35	LI, R. et al., "Two functional states of the CD11b A-domain: correlations with key features of two Mn2+-complexed crystal structures." J Cell Biol. 1998 Dec 14;143(6):1523-34.	

Examiner Signature	Maher Haddad	Date Considered	4/09/03
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				Filing Date	July 9, 2001
				First Named Inventor	SPRINGER, Timothy
				Group Art Unit	1653
				Examiner Name	
Sheet	4	of	5	Attorney Docket Number	A-70586-1/RFT/RMS/RMK

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MH	C36	LO, S.K. et al., "Transient adhesion of neutrophils to endothelium." J Exp Med. 1989 May 1;169(5):1779-93.	
MH	C37	LO, S.K., et al., "Two leukocyte receptors (CD11a/CD18 and CD11b/CD18) mediate transient adhesion to endothelium by binding to different ligands." J Immunol. 1989 Nov 15;143(10):3325-9.	
MH	C38	LOFTUS, J.C. and LIDDINGTON, R.C. "Cell adhesion in vascular biology. New insights into integrin-ligand interaction." J Clin Invest. 1997 May 15;99(10):2302-6	
MH	C39	MALAKAUSKAS, S.M. and MAYO, S.L. "Design, structure and stability of a hyperthermophilic protein variant." Nat Struct Biol. 1998 Jun;5(6):470-5.	
MH	C40	MICHISHITA, M. et al., "A novel divalent cation-binding site in the A domain of the beta 2 integrin CR3 (CD11b/CD18) is essential for ligand binding." Cell. 1993 Mar 26;72(6):857-67.	
MH	C41	NAUTIYAL, S. et al., "A designed heterotrimeric coiled coil." Biochemistry. 1995 Sep 19;34(37):11645-51.	
MH	C42	NOLTE, M. et al., "Crystal structure of the alpha1beta1 integrin I-domain: insights into integrin I-domain function." FEBS Lett. 1999 Jun 11;452(3):379-85.	
MH	C43	OXVIG, C. et al., "Conformational changes in tertiary structure near the ligand binding site of an integrin I domain." Proc Natl Acad Sci U S A. 1999 Mar 2;96(5):2215-20.	
MH	C44	PERUTZ, M.F. "Mechanisms of cooperativity and allosteric regulation in proteins." Q Rev Biophys. 1989 May;22(2):139-237.	
MH	C45	PYTELA, R. "Amino acid sequence of the murine Mac-1 alpha chain reveals homology with the integrin family and an additional domain related to von Willebrand factor." EMBO J. 1988 May;7(5):1371-8.	
MH	C46	QU, A. and LEAHY, D.J. "Crystal structure of the I-domain from the CD11a/CD18 (LFA-1, alpha L beta 2) integrin." Proc Natl Acad Sci U S A. 1995 Oct 24;92(22):10277-81.	
MH	C47	QU, A. and LEAHY, D.J. "The role of the divalent cation in the structure of the I domain from the CD11a/CD18 integrin." Structure. 1996 Aug 15;4(8):931-42.	
MH	C48	RICH, R.L. et al., "Trench-shaped binding sites promote multiple classes of interactions between collagen and the adherence receptors, alpha(1)beta(1) integrin and Staphylococcus aureus cna MSCRAMM." J Biol Chem. 1999 Aug 27;274(35):24906-13.	
MH	C49	SMITH, C.W. et al., "Cooperative interactions of LFA-1 and Mac-1 with intercellular adhesion molecule-1 in facilitating adherence and transendothelial migration of human neutrophils in vitro." J Clin Invest. 1989 Jun;83(6):2008-17.	
MH	C50	SMITH, C.W. et al., "Recognition of an endothelial determinant for CD 18-dependent human neutrophil adherence and transendothelial migration." J Clin Invest. 1988 Nov;82(5):1746-56.	
MH	C51	SMYTH, S.S. et al., "Regulation of vascular integrins." Blood. 1993 Jun 1;81(11):2827-43.	
MH	C52	SPRINGER, T.A. and ANDERSON, D.C. "The importance of the Mac-1, LFA-1 glycoprotein family in monocyte and granulocyte adherence, chemotaxis, and migration into inflammatory sites: insights from an experiment of nature." Ciba Found Symp. 1986;118:102-26.	

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MH	C53	SPRINGER, T.A. "Folding of the N-terminal, ligand-binding region of integrin alpha-subunits into a beta-propeller domain." Proc Natl Acad Sci U S A. 1997 Jan 7;94(1):65-72.		
MH	C54	SPRINGER, T.A. "Adhesion receptors of the immune system." Nature. 1990 Aug 2;346(6283):425-34.		
MH	C55	TODD, R.F. 3rd et al., "Subcellular localization of the large subunit of Mo1 (Mo1 alpha; formerly gp 110), a surface glycoprotein associated with neutrophil adhesion." J Clin Invest. 1984 Oct;74(4):1280-90.		
MH	C56	YANCEY, K.B. et al., "Human C5a modulates monocyte Fc and C3 receptor expression." J Immunol. 1985 Jul;135(1):465-70.		
MH	C57	ZHANG, L. and PLOW, E.F., "Amino acid sequences within the alpha subunit of integrin alpha M beta 2 (Mac-1) critical for specific recognition of C3bi." Biochemistry. 1999 Jun 22;38(25):8064-71.		

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**SUPPLEMENTAL INFORMATION  
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STATEMENT BY APPLICANT**

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Sheet

1

of

1

Application Number

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First Named Inventor

MAYO, Stephen

Group Art Unit

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MT	B2	WO 95/17412 A1	06-29-1995	ICOS CORPORATION		

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MT	C59	LU, C, et al., "Association of the membrane proximal regions of the alpha and beta subunit cytoplasmic domains constrains an integrin in the inactive state." J Biol Chem. 2001 May 4;276(18):14642-8.	
MT	C60	SHIMAOKA M, et al., "Conformational regulation of integrin structure and function." Annu Rev Biophys Biomol Struct. 2002;31:485-516.	
MT	C61	SHIMAOKA M, et al., "Computational design of an integrin I domain stabilized in the open high affinity conformation." Nat Struct Biol. 2000 Aug;7(8):674-8.	
MT	C62	XIONG JP, et al., "An isoleucine-based allosteric switch controls affinity and shape shifting in integrin CD11b A-domain." J Biol Chem. 2000 Dec 8;275(49):38762-7.	

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Maha Haddad

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